Chapter
11

INDOT 2030 Long Range Plan

Types of Improvements and Listing of Expansion Projects

Transportation Plan Improvement Types Defined

In the development of transportation improvements for the year 2030 transportation plan update, it is necessary to define the proposed improvement's design concept and scope in sufficient detail to allow a cost estimate of the proposed work to be made. In many cases, the proposed transportation improvements are at a very early stage in the planning and project development process and a significant amount of additional study is required to determine the most appropriate improvement. Proposed improvements in the long-range transportation plan are identified at two basic levels.

The first is that the proposed improvement has received sufficient study to allow a preferred improvement concept to be identified from a set of alternative improvement types, i.e., the appropriate environmental documentation is complete. These are identified as "projects". This type of project has gone through a series of feasibility / planning and environmental evaluations to determine the basic transportation problem, the range of feasible alternatives to address the problem, and the study of the pros and cons of the alternatives in order to identify the preferred alternative.

The second category of proposed improvements is the "placeholder" type of projects. This category is made of those proposed improvements that offer a solution to the identified transportation problem, however it is not clear that the proposed improvement is the "best" improvement. These projects are typically at a very early stage in the planning process and additional study is required to determine the most appropriate improvement. For this type of project, a relative consensus exists in that a transportation problem has been identified but that study of the costs and benefits of a range of feasible alternatives is required before a preferred alternative can be identified with certainty. Many of these projects present difficulty in the planning process due to the need to identify needed transportation improvements at relatively long periods into the future and have an idea of what amounts of fiscal resources will be required to maintain adequate levels of mobility. To allow for this information in the planning process, a "placeholder" concept has been used to identify potential improvement in terms of design concept sufficient to estimate cost of providing the improvement as well as other impacts of the proposed action such as air quality emissions and right-of-way requirements. As the proposed improvement concept advances into the necessary corridor planning / feasibility studies and the appropriate environmental documentation is complete, the "placeholder" project transitions into a better-defined project as defined in the first category described above.

Improvement Types

The transportation plan is focused upon improvement types that increase the carrying capacity of the transportation system, i.e., those that provide for the expansion of capacity through the provision of multiple lanes. These expansion projects receive special attention due to the long time these projects require to be built. A typical expansion project usually requires a minimum seven to eight year development process made of four stages (planning/environmental studies, design engineering, land acquisition, and construction), each requiring one, two or sometimes three years for completion. In addition to the long lead time required for project implementation, expansion projects may create significant impacts to our environment which requires consideration of long-range impact. For these reasons, the transportation plan focuses on the expansion projects and does not consider maintenance or preservation type transportation improvements such as resurfacing, signals, signing, lighting, pavement markings, and other actions that preserve the existing transportation facilities. One gray area is the improvement of an existing two-lane road or the construction of a new two-lane road that significantly upgrades the carrying capacity of the roadway. For many types of these upgrades, the roadway is sufficiently improved for the project to be considered an expansion project. These projects typically involve the provision for wider lanes, wider shoulders, straightening curves, leveling rises and dips, and better controlling adjacent access points (driveways) to allow for the improvement in the flow of traffic.

1. Added Travel Lanes

Construction of additional travel or through lanes to existing roadways for increased capacity to obtain a more efficient and safer facility. The existing pavement is usually reconstructed at the same time. Example: 2 lanes to 4 lanes or, 2 lanes to 5 lanes, but not 2 lanes to 3 lanes or, 4 lanes to 5 lanes.

2. New Road Construction

Construction of a new or relocated roadway, mostly or completely on a new alignment.

3. Reconstruction

Projects that resurface, restore, rehabilitate, and reconstruct the existing pavement (4R) and that provide some traffic flow and operational improvements via wider travel lanes, wider shoulders, sight distance improvements, and horizontal/vertical curve corrections are included in the project listing. There are additional reconstruction projects programmed on the state highway system that are not included in the project listing, as they reconstruct the existing pavement without the improvements listed above. Geometric design standards for two-lane roadway upgrades are based upon forecasted traffic levels and roadway characteristics.

4. Rehabilitation

Projects that resurface, restore, and rehabilitate the existing pavement (3R) and that provide traffic flow and operational improvements, i.e. wider travel lanes, wider shoulders, limited sight distance improvements, and horizontal/vertical curve corrections are included in the project listing. Rehabilitation is a less significant improvement type than reconstruction. There are many more rehabilitation projects programmed on the state

highway system that are not included in the project listing, as they merely rehabilitate the existing pavement without the improvements listed above. It is important to note that funding is drawn from the *preservation* program funding—*not the expansion program of funding*. Therefore, no costs are shown in the project listing for 3R Rehabilitation projects.

5. TSM

Transportation System Management (TSM) is a placeholder identified in built-up urban areas experiencing capacity problems that have limited right-of-way that essentially prevents added travel lanes. The improvement option is not apparent until further studies are completed. Possible options are operational improvements, one-way pairs, intersection improvements, turn lanes, bypass, access control, etc.

6. Median Construction

Construction of a project that will improve the safety and capacity of a roadway, generally by reconstructing the existing pavement and providing a continuous two-way left turn lane in the center of the roadway. Example: 2 lanes to 3 lanes or 4 lanes to 5 lanes.

7. Interchange Modification

Construction of improvements to an interchange, ranging from ramp terminal improvements, eliminating two-way ramps, or adding lanes to ramps to replacing existing movements with loop ramps or directional ramps.

8. New Interchange Construction

Construction of a new interchange as an improvement to an existing roadway, generally to decrease congestion and improve safety.

9. Placeholder for Interchange Needs

A placeholder for future interchange improvements as identified in the statewide study of Interstate interchanges. Ultimately, projects will be programmed, mainly in the Interchange Modification category and possibly a few in the New Interchange Construction category.

10. New Bridge Construction

Construction of a major new bridge structure or a grade separation where one did not exist before, resulting in increased capacity and safety. Example: a new bridge over the Ohio River, an isolated grade separation over a roadway where an at-grade intersection existed before.

11. Freeway Upgrade

Construction of new interchanges and grade separations and reconstructing existing pavement (and possibly added travel lanes) to improve the traffic carrying capacity and safety of an existing roadway by eliminating all at-grade intersections and railroad crossings and fully limiting access to and from the highway at interchanges only. Example: upgrading a segment of US 31 from Indianapolis to South Bend to a freeway that has not been studied in great detail. It should be noted that in urban areas, projects of this type may be programmed as a series of New Interchange Construction projects, as no

work type category of a general nature such as “freeway upgrade” exists. Such is the case with US 31 from I-465 to SR 38 in Hamilton County.

12. Undetermined

A placeholder for a possible improvement of a very significant magnitude that is extremely difficult to speculate as to the improvement type that would solve existing problems.

Road Rehabilitation / Reconstruction (3R/4R) Improvements

In the INDOT production schedule of roadway improvements, the J300 work code category provides for Road Rehabilitation / Reconstruction (3R / 4R) projects. These projects are typically improvements to an existing roadway to improve the pavement and traffic operations of the roadway but do not provide for the full addition of a travel lane in each direction and are thus not included in the 2030 Long-Range Plan update. Rather, the Long Range Plan focuses on those expansion projects that provide for added travel and/or new roadway construction improvements and does not consider maintenance or preservation type transportation improvements - resurfacing, signals, signing, lighting, pavement markings, and other actions that preserve the existing transportation facilities.

Rehabilitation

Projects that resurface, restore, and rehabilitate the existing pavement (3R) and that provide improving traffic flow and operational characteristics, i.e. wider travel lanes, wider shoulders, limited sight distance improvements, and some correction to horizontal/vertical curve problems, are included in the LRP project listing as improvements. Rehabilitation is a less significant improvement type than reconstruction. There are many more rehabilitation projects programmed on the state highway system that are not considered improvements for inclusion in the 2030 Long Range Plan, as they merely rehabilitate the existing pavement without the improvements listed above. It is important to note that funding for these types of projects is drawn from the preservation program funding—not the expansion program of funding.

Reconstruction

Projects that resurface, restore, rehabilitate, and reconstruct the existing pavement (4R) and that provide some traffic flow and operational improvements via wider travel lanes, wider shoulders, sight distance improvements, and horizontal/vertical curve corrections are included in the LRP project listing as projects that improve the roadway traffic flow and operational characteristics. There are additional reconstruction projects programmed on the state highway system that are not considered improvements for inclusion in the 2030 Long Range Plan, as they reconstruct the existing pavement without the improvements listed above. Geometric design standards for two-lane roadway upgrades are based upon forecasted traffic levels and roadway characteristics.

Project Listing Details and Definitions

The projects in the INDOT 2030 Long Range Plan are listed in the following pages. There are two separate listings of the same projects. The first listing is by INDOT District. The second listing is by Metropolitan Planning Organization (MPO) and Funding Period.

The following provides additional detail regarding how to read and understand the project listing:

Route: I (Interstate), U (US), S (State Road), followed by the route number.

County: The alphabetically assigned number for the county in which the project is located. A county listing is provided on the next page.

Project Type: The type of improvement proposed. The 12 project types are described earlier in this chapter. Note: reconstruction, rehabilitation, TSM and median construction projects are provided for information only.

Des #: An INDOT abbreviation, short for designation number, which is the assigned number to identify the project in the INDOT scheduling system. The first two numbers are generally the year the project was programmed. If no number is listed, then the improvement is not yet programmed.

RFC Date: Ready for Contracts Date. The year in which a project is anticipated to be ready for construction contracts, generally three months before project letting (awarding a contract to a contractor to construct the project). All project development activities are complete at the RFC Date. This date is flexible and may move in or out depending on circumstances encountered in the project development process and in part, subject to availability of funding. Generally, near-term RFC dates are less likely to be adjusted than those farther in the future. (For system level planning documents, the Funding Period information as shown below is more appropriate for decision making as it tends to remain more stable than the RFC Date:).

Funding Period: The Funding Period of the RFC date.

Funding Period 1: 2004-2009

Funding Period 2: 2010-2014

Funding Period 3: 2015-2019

Funding Period 4: 2020-2024

Funding Period 5: 2025-2030

Cost (1,000s): Total Project Cost (design, engineering, right-of-way, and construction) of the improvement in thousands of dollars, excluding the cost of project phases that have been completed.

Status: A *placeholder* is an improvement that has not cleared requisite environmental review, or has not advanced to the stage where there are clarity and consensus on how to improve the roadway. A *project* is an improvement that has completed the environmental phase of project development and is approved for continued use of Federal funds.

MPO LRP: *This only appears in the "Project Listing by MPO and Funding Period".* The box is checked if the project is in the MPO's Long Range Transportation Plan.

Air Quality: This is a checked box intended to indicate that the project falls within a designated EPA ozone air quality non-attainment area.

Plan Support: A short description of the type of planning support that exists for the project.

Description: Location of the project or placeholder element.

Project Length: Length of the project in miles.

Begin Lanes: Number of lanes before the improvement.

End Lanes: Estimate of the number of lanes after the improvement is implemented. This provides an estimate of the prevailing number of through lanes, or representative or functional lanes, and will vary relative to special use auxiliary lanes (i.e. collector-distributor roadways, frontage or local-service roads, adjacent on-ramp to off-ramp "weave" lanes, continuous median left-turn lanes). For placeholder improvements, the precise number of lanes will be determined in downstream phases of project development.

MPO: The MPO in which the project is located. If the project is not located within an MPO boundary, it is listed as "Outside".

ID: A number assigned by the project listing database. This number identifies the projects on the maps.

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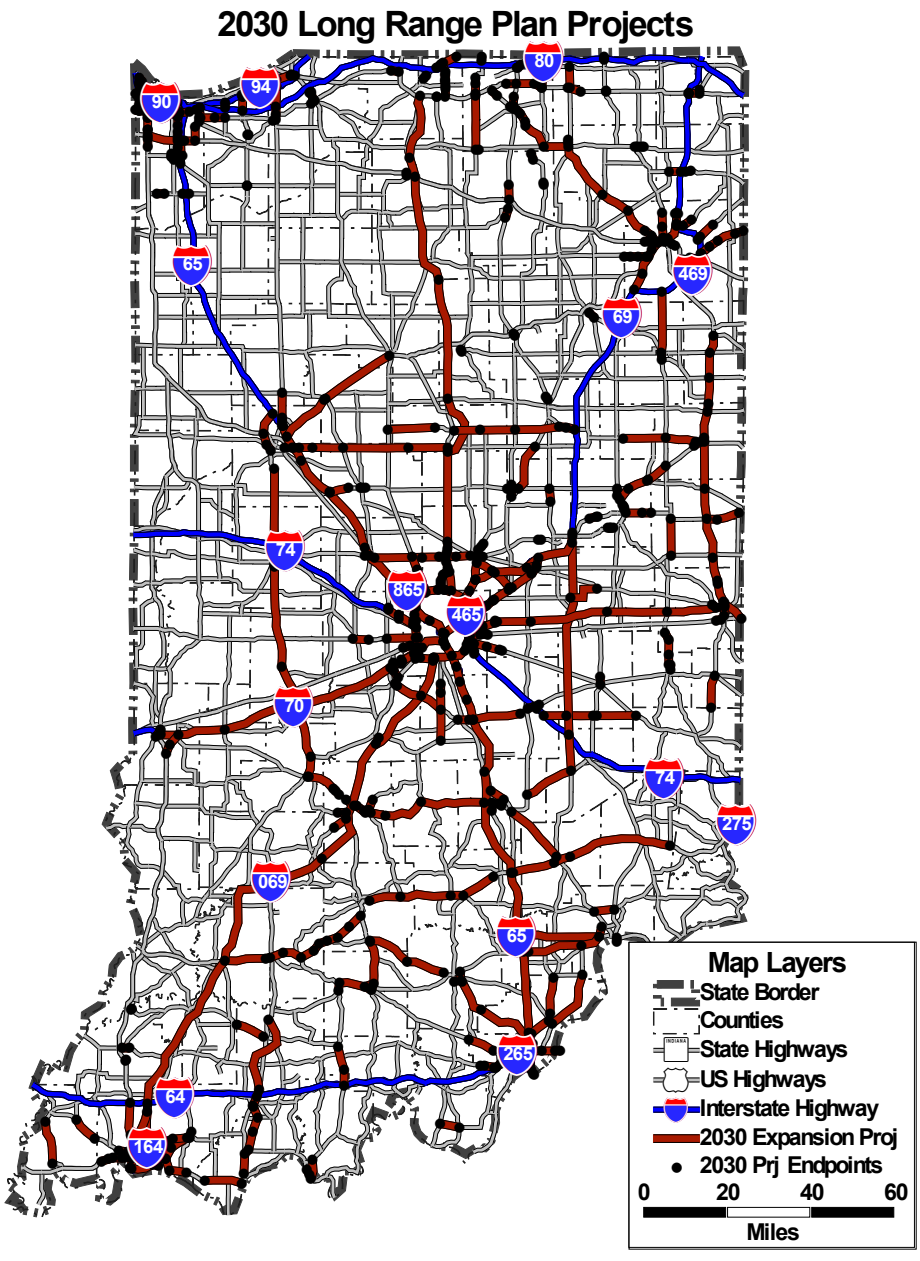
Figure 11-1



Two placeholder projects are not shown on the map due to uncertainty over their potential alignments but are included in the plan's 25-year program improvements. These are:

1. Central Indiana Suburban Transportation Improvements
2. North West Indiana South Suburban/Illiana Expressway

Project Listing by District

Project Listing by MPO and Funding Period